New Trap-door Nests of Spiders.— In two recent papers, Arachnides du Venezuela, (Ann. soc. ent. de France, 1889, v. 9) and Aviculariдae du Nord de l'Afrique, (Actes soc. Linnéenne de Bordeaux) E. Simon describes and figures a number of new nests of *mygalidae*. Among the Venezuela species, *Pseudidiops opifex* makes a short tube with trap-door on branches of trees. The tube is attached to the bark by one side and covered with bits of bark and lichens. *Stothis astuta* makes a short tube with a trap-door at each end, sometimes the tube is among loose rubbish on the surface of the ground and is then straight. In other places where the soil is more solid it burrows obliquely below the surface, carries the tube a short distance just under ground and turns it up again to the surface. *Rhytidicolus structor* makes a nest of three distinct chambers connected by narrow openings both closed by trap-doors, the one between the first and second chambers opening inwards. The cocoon is flat and is hung across the outer chamber. *Psalistops melanopygia* makes a tubular burrow, lined partly with silk, and with a branch near the upper end like many other species, but with no trap-door, and conceals the mouth of the tube with leaves and rubbish. *Epipedesis opifex* makes a simple furrow on the surface of the ground under a stone or moss and covers it with silk.

Among the African species *Leptopelma cavicola* makes a branched tube without any trap-door. *Dolichoscaptus latastei* carries its tube with trap-door ten centimeters above the surface of the ground making it stiff with bits of dirt and leaves fastened with silk to the outside. *Dolichoscaptus vittatus* was found in several cases to bore at the bottom of its burrow a short tube too small for the spider, filled with the remains of insects that it had eaten. *Dolichoscaptus artifex* makes a very peculiar, complicated burrow. At the mouth it has the usual flat trap-door. A short distance below the surface the burrow is enlarged into a spherical cavity in which works a door of a different kind. It consists of a lump of dirt covered with silk, shaped like half an egg with the edges rounded off and large enough to half fill the spherical cavity. When turned with its longest diameter vertical and its convex side against the wall of the cavity it leaves room for the spider to pass on the opposite side from the upper to the lower part of the burrow. When turned with its longest diameter across the burrow it closes it completely. To complicate this arrangement still more, a flexible tube of silk, continuous with the lining of the lower part of the burrow and open at the top, is attached along the flat side of this door so that when the door is open the spider passes up or down through this tube, and when the door is closed the tube is flattened against the side of the burrow.

J. H. Emerton.

Otiorhynchus sulcatus injurious to plants in greenhouses in Massachusetts.—Mr. W. M. Corving of West Roxbury wrote me 5 March, 1889, that the Cyclamens in the greenhouses of the Messrs. Fisher Brothers of Montvale, Mass., were seriously injured by a beetle. The injuries were confined chiefly to the flowers but sometimes the bulb was destroyed. The leaves being hard and leathery escape injury. Mr. Corving sent me a specimen which proved to be the well known European weevil *Otiorhynchus sulcatus*, the existence of which in Massachusetts has been known for a very long time. Dr. Horn gives as localities Massachusetts, Canada, Newfoundland and Nova Scotia; all of these are represented in the Leconte collection. The general collection of the Museum contains two specimens from Europe (Ziegler collection) and six specimens collected in Cambridge in 1872 by Boll. I was interested to know when and by whom the beetle was first recognized here. Schoenherr (Curc., 1843, v. 7, p. 371) gives *O. apiculatus* Say Mss. as a synonym of *O. sul-*

catus. Harris in his catalogue (second edition 1835) has first mentioned Say's species and in his manuscript catalogue records receiving the same from "Doct. Gould, another from Dr. Smith." This entry is inserted between specimens collected in May and June, 1831. Prof. Riley in his third Missouri report (1871 p. 11) states that the species infests the crown of strawberries but does not say where it was observed. Provancher speaks of the species as "très commune." Lintner in his second report (1885 p. 51) mentions it as injurious to bulbs and house-plants. I do not find the species recorded west of Pa. In the European literature it is mentioned everywhere and the early stages are described by Bouché, Westwood, Lucas and others. *H. A. Hagen.*

NOTES ON COLIAS EURYTHEME AND C. PHILODICE.—In the vicinity of Charleston, S. C., where most of my observations have been made, *Colias eurytheme* is the characteristic type. I may say, in fact, that it is the only member of the genus that I have ever seen on the seaboard. It is as plentiful there as *C. philodice* usually is in its proper range, though not seen, as far as I know, in the countless hordes in which the latter is said to congregate at times. In Clarendon County, S. C., where I have collected, off and on, for a good many years, *C. eurytheme* was not as abundant as on the coast, *C. philodice* not found at all, and *C. caesonia* taken occasionally. In Ashville, N. C., where *C. philodice* is very abundant, I have never seen *C. eurytheme;* and *C. caesonia* but once. Spartanburg County, S. C., is the highest locality in which I have yet found *C. eurytheme*.

I have never seen *C. philodice* at all in South Carolina until this autumn; at which time I was enabled to do considerable collecting in Columbia, a locality where I had never collected before. Here I found *C. philodice* and *C. eurytheme* occurring in equal and considerable abundance, and this spring I meet *C. philodice* and *C. ariadne* in about the same proportion. I have noticed a decided difference of manner between the two; *C. eurytheme* being much swifter in flight, its stop at a flower less prolonged, and its whole manner more decided; and it is also much more wavy and therefore more difficult to catch than *C. philodice*. In this respect, my experience is, to use an equation, that *C. philodice : C. eurytheme :: C. eurytheme : C. caesonia*.

Our normal spring form of *eurytheme* is *C. ariadne*. I have taken, this past January (12th to 24th et seq.) a large series of *C. ariadne*, which are, on the average, identical with forms from Texas, and show no marked variation from a few that I have from Wisconsin. A pretty full series of western *C. eurytheme* in my collection, consisting of specimens from five states, from Wisconsin to California, present no marked difference from our autumn *eurytheme;* possibly in one or two cases, the western form may be a trifle more irridescent than our average; but I have one July ♂ taken in Charleston, that is fully as rich in color, as any that I possess from the west. I notice among these western forms some that appear to me to be unmistakably *C. keewaydin:* this form I have not taken here, though I have a few *C. ariadne* from Charleston that are very large and yellow and seem to intergrade with *C. keewaydin*.

The autumn ♂♂ of *C. philodice* taken in Columbia are much larger than northern forms of the same in my collection from Princeton, N. J. We have a spring form of *C. philodice*, bearing the same relation as far as size is concerned, to the autumn *C. philodice*, that *C. aridne* bears to *C. eurytheme*.

In the city of Charleston, I have taken the eggs of *C. eurytheme* from white clover, as they were laid by the female.

The white ♀♀ of both *C. eurytheme* and *philodice* I have taken here, in Columbia, in spring and autumn.

C. caesonia, the only other of the genus found with us, is by no means abundant, though not infrequent last autumn. I captured six in Columbia, in October and November, 1889. *Elison A. Smyth. Jr.*